| Index of Cla | ıms |
|--------------|-----|
|              |     |

| Application No.  | Applicant(s) |  |
|------------------|--------------|--|
| 10/036,590       | SMITH ET AL. |  |
| Examiner         | Art Unit     |  |
| Callie E. Shosho | 1714         |  |

| , | Rejected | _ | (Through numeral)<br>Cancelled | [ | 1 | Non-Elected  | Α | Appeal   |
|---|----------|---|--------------------------------|---|---|--------------|---|----------|
| = | Allowed  | ÷ | Restricted                     |   |   | Interference | 0 | Objected |

| Cla         | aim                 | m Date   |  |              |                 |                 |          | Cla  | Date   |           |          |  |               |                 |          |          | CI       | aim      | Date      |        |              |        |             |            |                     |          |          |                |           |   |                 |                 |           |
|-------------|---------------------|--|--|--------------|-----------------|-----------------|----------|--|--|-----------|----------|--|---------------|-----------------|----------|----------|----------|----------|-----------|--------|--------------|--------|-------------|------------|---------------------|----------|----------|----------------|-----------|---|-----------------|-----------------|-----------|
|             | <del></del>         | <u>۔</u> ا                                       |  |              |                 |                 |          |  |  |           |          |  | - <del></del> |                 |          |          |          | Ī        |           |        |              |        |             |            |                     |          |          |                |           |   |                 |                 |           |
| Final       | Original            | 1/20/04  |  |              |                 |                 |          |  |  |           |          | Final  | Original      |                 |          |          |          |          |           | Ì      |              |        | Final       | Original   |                     |          |          |                |           |   |                 |                 | -         |
| 证           | ij                  | 2  | ł  |              |                 |                 |          |  |  |           |          | 谴  | 뜻             | 1               |          | ĺ        | - 1      | ٠        | - [       |        |              |        | 证           | 꽃          |                     | -        |          |                |           |   |                 |                 |           |
|             |                     | ļ`   | 1  |              |                 |                 |          |  |  |           |          |  | ٦             |                 |          |          |          |          | 1         |        | l.           |        |             | "          |                     |          |          |                | ŀ         |   |                 |                 |           |
|             | 1                   | 1  |  |              |                 |                 |          |  |  |           |          |  | 51            |                 |          |          |          |          |           |        |              | 7::::  |             | 101        |                     |          |          |                | П         |   |                 | $\neg$          | $\neg$    |
|             | 2                   | П  | <u> </u>   | $\Box$       |                 | П               |          |  | $\Box$   |           |          |  | 52            |                 |          |          |          |          |           |        | T            | 7      |             | 102        |                     |          |          |                | П         |   |                 | $\neg$          |           |
|             | 3                   | П  |  |              | П               | П               |          |  |  |           |          |  | 53            |                 |          | -        |          |          |           |        |              | 1      |             | 103        |                     |          |          |                |           |   |                 |                 |           |
|             | 4                   |  |  |              |                 | $\Box$          |          |  |  |           |          |  | 54            | П               |          |          | T        |          |           | T      | 7            | 1      |             | 104        |                     |          | $\Box$   |                | T         |   |                 | T               |           |
|             | 5                   | Π  |  |              |                 |                 |          |  |  |           |          | _  | 55_           | 1               |          |          |          |          | $\neg$    | 1      |              | 1      |             | 105        |                     |          |          |                |           |   |                 | _               |           |
|             | 6                   | П  |  |              |                 |                 |          | <u> </u>   |  |           |          |  | 56            |                 |          |          |          |          |           |        |              | 1      |             | 106        |                     |          |          |                | $\neg$    |   |                 | ヿ               |           |
|             | 7                   |  |  |              |                 |                 |          |  |  |           |          |  | 57            | П               |          | -        |          |          | T         | 1.     |              | 1      |             | 107        |                     |          |          |                | $\neg$    |   |                 | ヿ               | T         |
|             | 8                   | J  |  |              | П               |                 | Ī -      | Ì  |  |           |          |  | 58            |                 |          | Ì        | Ì        | Ì        | ·   ·     |        | Ì            | 1::::: | .,          | 108        | ĺ                   | - 1      | ·Ì       |                | T         |   |                 | T               | T         |
|             | 9                   | 7  |  |              |                 |                 |          |  |  |           |          |  | 59            | H               |          |          |          |          |           |        | T            | 1::::: |             | 109        |                     |          |          |                |           |   | $\neg$          | ヿ               |           |
|             | 10                  | V  |  |              |                 |                 |          |  |  |           |          |  | 60            |                 |          |          |          |          | 1         |        |              | 1      |             | 110        |                     |          |          |                |           |   | ヿ               | $\neg$          |           |
|             | 11                  | П  |  |              |                 |                 |          |  |  |           |          |  | 61            |                 |          |          |          |          |           |        | 1            | 1      |             | 111        |                     | T        |          |                | $\neg$    |   |                 | ヿ               | ヿ         |
|             | 12                  |  | <del>                                     </del> | <u> </u>     | М               | П               | Г        |  | П  |           |          |  | 62            | П               |          | j        | 寸        | 寸        | 1         | ┪      | 1            | 1      |             | 112        |                     | T        |          |                | 一         |   | 寸               | ヿ               | $\exists$ |
|             | 13                  |  | П  |              |                 |                 |          | 1  |  |           |          | <u> </u>   | 63            | Ħ               |          | 1        | 寸        | 寸        | $\exists$ | 1      | 1            | 1      |             | 113        |                     | T        |          |                | $\neg$    |   | 寸               | ヿ               | $\neg$    |
|             | 14                  | П  | П  |              | П               | П               |          |  | П  |           |          |  | 64            | П               |          | i        | $\dashv$ | $\dashv$ | T         | $\top$ | +            | 1      |             | 114        |                     |          |          |                |           |   | $\neg \uparrow$ | $\neg \uparrow$ | $\exists$ |
|             | 15                  | П  | $\Box$   |              |                 |                 | <b> </b> | 1  |  |           |          |  | 65            | H               | _        | - (      | $\dashv$ | $\dashv$ | 十         | 十      | T            | 1      |             | 115        |                     | 寸        | $\neg$   |                | _         |   | 十               | $\dashv$        | $\dashv$  |
| -           | 16                  | Н  |  |              | Н               |                 |          |  | H  |           |          |  | 66            |                 |          | 1        | 7        | 7        | $\neg$    | +      | T            | 1      |             | 116        |                     | 1        | $\neg$   |                | T         |   | 寸               | $\dashv$        | ヿ         |
|             | 17                  | H  |  |              | П               | П               | $\vdash$ | <u> </u>   | -  |           |          | ····   | 67            | 1-1             |          | -1       | -+       | $\dashv$ | +         | ╅      | T            | 1      |             | 117        |                     | 寸        | $\dashv$ | $\Box$         | $\dashv$  |   | $\dashv$        | $\dashv$        | $\dashv$  |
|             | 18                  | 1  | ┪  | $\vdash$     | Н               | Н               |          |  | H  |           |          |  | 68            |                 |          | -        | _        | +        | $\dashv$  | +      | +            | 1::::  |             | 118        |                     | _        | $\neg$   |                | $\dashv$  |   | $\dashv$        | $\dashv$        | $\dashv$  |
|             | 19                  | H  |  | Н            |                 | Н               | <u> </u> | <del> </del>                                     |  |           |          |  | 69            |                 |          | 1        | _        | +        | 一         | +      | ✝            | 1      |             | 119        |                     | _        | $\neg$   |                | $\dashv$  |   | $\dashv$        | $\dashv$        | $\dashv$  |
| <u> </u>    | 20                  | <del>   </del>                                   | ├  | _            |                 | Н               |          |  | H  |           |          |  | 70            | H               |          |          | 1        | +        | 一         | ┪      | +            | 1      |             | 120        |                     | _        | $\neg$   |                | $\exists$ |   | 十               | $\dashv$        | 一         |
|             | 21                  | H  |  | $\vdash$     | H               | Н               |          |  |  |           |          |  | 71            | H               |          | -        | 7        | $\dashv$ | +         | ╅      | ╁            | -      |             | 121        |                     | -+       |          |                |           |   | -               | +               |           |
|             | 22                  | Н  | $\vdash$   |              | H               | Н               |          |  | H  |           |          |  | 72            |                 |          |          | -        | -        |           | +-     | 1            | 1      | -           | 122        |                     | 十        | $\dashv$ |                | $\dashv$  |   | $\dashv$        | $\dashv$        | -1        |
|             | 23                  | H  | $\vdash$   |              |                 |                 | $\vdash$ |  | ┢┷┤  |           |          | <u> </u>   | 73            | H               |          | _        | 7        | $\dashv$ | +         | +      | +            | 1      |             | 123        |                     | 1        | $\dashv$ |                | $\dashv$  |   | 十               | $\dashv$        | $\dashv$  |
|             | 24                  | ╁  | ┞  |              |                 | Н               | <u> </u> |  |  |           |          |  | 74            | H               |          | _        | $\dashv$ | +        | $\dashv$  | +      | +            | 1::::  |             | 124        |                     | $\dashv$ |          | -              | $\dashv$  |   | 十               | $\dashv$        | $\dashv$  |
|             | 25                  | V  |  |              |                 | Н               |          |  | <del>                                     </del> |           |          | <del></del>                                      | 75            | 1               |          |          | 1        | +        | 1         |        | +            | 1      |             | 125        |                     |          | $\neg$   |                | $\exists$ |   | $\dashv$        | $\dashv$        | $\dashv$  |
| <b></b>     | 26                  | *  |  |              |                 | Н               |          |  |  |           |          |  | 76            | $\vdash$        | _        |          | 7        | +        |           | ╁      | ╁╴           | 1      |             | 126        |                     | 一        |          |                | $\dashv$  |   |                 | 十               | $\dashv$  |
|             | 27                  |  |  |              |                 |                 |          |  | 1-1  |           |          | <del></del>                                      | 77            | $\vdash$        | +        | 7        | 7        | $\dashv$ | $\pm$     | +      | +            | 1      |             | 127        | H                   | +        | $\dashv$ |                | 一         |   | $\dashv$        | $\dashv$        | $\dashv$  |
|             | 28                  |  |  |              | H               | Н               |          |  | H  |           |          |  | 78            |                 |          | -        | ┪        | +        | +         | ╁┈     | ┿╌           | 1      |             | 128        | -                   | +        |          |                | $\exists$ |   |                 | $\dashv$        | $\dashv$  |
|             | 29                  |  |  |              |                 | H               |          | $\vdash$   | $\vdash$   |           |          | <del></del>                                      | 79            |                 | _        | -        | $\dashv$ | $\dashv$ | $\vdash$  | +      | +            | 1      |             | 129        |                     | -        | $\dashv$ |                | $\dashv$  |   | $\dashv$        | $\dashv$        | ╣         |
|             | 30                  | -  |  |              |                 |                 |          | $\vdash$   | H  |           |          |  | 80            |                 | -        | -        | ┰┼       | -        | +         | +-     |              | 1      |             | 130        |                     | ╅        |          | $\dashv$       | $\dashv$  |   |                 | $\dashv$        | $\dashv$  |
|             | 31                  | ├  |  |              | Н               | Н               |          | -  | ┤  |           |          | ┝  | 81            |                 | +        | -        | $\dashv$ | $\dashv$ | +         | +      | ╁            | 1      |             | 131        | -                   | ╌╂       |          |                | $\dashv$  |   | +               | $\dashv$        | -         |
|             | 32                  | ┢  |  |              | H               | Н               | -        |  |  |           |          |  | 82            | -               |          |          | $\dashv$ | -        |           |        | ╁            | -      |             | 132        |                     | -1       | $\dashv$ |                | $\dashv$  |   | $\dashv$        |                 |           |
|             | 33                  | $\vdash$   | $\vdash$   |              | Н               | H               |          | H  | ╁┤   | -         |          | <del></del>                                      | 83            | H               |          | $\dashv$ | $\dashv$ | $\dashv$ | +         | +      | +            | 1::::  |             | 133        | ┢                   |          | $\dashv$ |                | $\dashv$  |   | $\dashv$        | $\dashv$        | $\dashv$  |
|             | 34                  | ├-   | <del> </del>                                     |              | Н               | Н               |          | $\vdash$   | $\vdash \vdash$                                  |           | <b> </b> | <del> </del>                                     | 84            | H               | -        | $\dashv$ | $\dashv$ | $\dashv$ | +         | ╁      | +            | 1      |             | 134        | $\vdash$            | - 1      | $\dashv$ | $\vdash$       | $\dashv$  |   | -+              | $\dashv$        | $\dashv$  |
| $\vdash$    | 35                  | _  |  | $\vdash$     |                 | ┝╼┥             |          | <del>                                     </del> | $\vdash$   | _         | <b>.</b> | <u> </u>   | 85            |                 |          |          | $\dashv$ |          |           | -      | 十            | 1      |             | 135        | $\vdash \vdash$     | -        | $\dashv$ | ⊢⊢             | $\dashv$  |   | +               | -+              | $\dashv$  |
| <u> </u>    | 36                  | $\vdash$   |  |              | Н               | $\vdash$        |          |  | ┝┤   | - '       |          | <del> </del>                                     | 86            | H               | -        | $\dashv$ | $\dashv$ | $\dashv$ | +         | +      | +            | 1      | <del></del> | 136        | $\vdash$            | +        | $\dashv$ |                |           |   | +               | $\dashv$        | $\dashv$  |
| $\vdash$    | 37                  | <del> </del>                                     |  | $\vdash$     | $\vdash$        | ├╌┤             |          |  | $\vdash$   |           |          | $\vdash$   | 87            | ┝╼┤             |          |          | $\dashv$ | 一十       |           |        | ┿            | 1      |             | 137        | $\vdash$            | +        | $\dashv$ | -+             | $\dashv$  |   | $\dashv$        | $\dashv$        | $\dashv$  |
| $\vdash$    | 38                  | <del>                                     </del> |  |              | Н               | $\vdash$        |          | -  | <del>                                     </del> |           |          | <del> </del>                                     | 88            | H               | $\dashv$ | +        | $\dashv$ | $\dashv$ | +         | +      | +            | 1      | <u> </u>    | 138        | $\vdash$            | -        | $\dashv$ |                |           |   | $\dashv$        | -+              | $\dashv$  |
|             | 39                  | $\vdash$   | ┢╌   | <del> </del> | H               | H               |          |  | ┝╌╏  |           |          | <del>                                     </del> | 89            | $\vdash$        |          | $\dashv$ | $\dashv$ | $\dashv$ | +         | +      |              | 1      |             | 139        | $\vdash$            | -        |          | $\vdash$       | $\dashv$  | - | -+              | $\dashv$        | $\dashv$  |
| <del></del> | 40                  | -  | -  |              | Н               | Н               | -        |  | $\vdash$   | _         |          | ├  | 90            | $\vdash \vdash$ | $\dashv$ | $\dashv$ | $\dashv$ | ┵        |           | ┰      | +            | 1      |             | 140        | $\vdash$            | $\dashv$ | $\dashv$ |                | $\dashv$  |   | $\dashv$        |                 |           |
|             | _                   | $\vdash$   | $\vdash$   |              | Н               | Н               |          |  |  |           |          | <u> </u>   |               | $\vdash$        | -        | $\dashv$ | $\dashv$ | $\dashv$ | +         | ┿      | ┰            | 1      |             |            | ┝┯┼                 |          |          | $\vdash$       | $\dashv$  |   | $\dashv$        | $\dashv$        | $\dashv$  |
| <u> </u>    | 41<br>42            | ├  | ├  | ┢            | Н               | Н               |          |  | $\vdash$   |           |          |  | 91<br>92      | ┝┥              |          |          |          | -+       | +         | +-     | +-           | 1      |             | 141        | $\vdash$            | -        | $\dashv$ |                | $\dashv$  | - | -+              | $\dashv$        | $\dashv$  |
|             | 42                  | <del> </del>                                     | -  |              | Н               | Н               |          | $\vdash$   | $\vdash \vdash$                                  |           |          | <del> </del>                                     | 93            | H               | $\dashv$ | $\dashv$ | +        | +        | +         | +      | +            | 1      |             | 142        | ┝╌╟                 |          | $\dashv$ |                |           | - | +               | -+              | $\dashv$  |
| <del></del> | 44                  | $\vdash$   | $\vdash$   |              | Н               | Н               |          |  | ┝╾┤  |           |          | <del>  -</del>                                   | 94            | $\vdash\vdash$  | $\dashv$ | $\dashv$ | -        | $\dashv$ | +         | +      | ╁            | 1      |             |            | ├┼                  | $\dashv$ |          | $\dashv$       | $\dashv$  |   | $\dashv$        | $\dashv$        | $\dashv$  |
| <u> </u>    | 45                  | $\vdash$   |  |              | Н               | Н               |          | <del> </del>                                     | ╁─┤  |           |          | <del> </del>                                     | 95            | $\vdash\vdash$  |          |          | $\dashv$ | $\dashv$ | +         | +-     | ┼~           | 1      |             | 144<br>145 | $\vdash \vdash$     | $\dashv$ | $\dashv$ |                | $\dashv$  | - | -+              | $\dashv$        | $\dashv$  |
| <u> </u>    | 46                  | $\vdash$   |  | $\vdash$     | $\vdash$        | $\vdash \vdash$ | <b>—</b> |  | $\vdash$   | <b></b> - |          | <del></del>                                      | 96            | ┝┙              | $\dashv$ | -        | $\dashv$ | +        | +         | +      | +            | -      |             |            | $\vdash \vdash$     | $\dashv$ | $\dashv$ |                | $\dashv$  |   | $\dashv$        |                 |           |
| <u> </u>    | 47                  | ⊢-   | $\vdash$   | <u> </u>     |                 |                 |          | $\vdash$   | $\vdash$   |           |          | —  | 95            | ┝╌┤             | $\dashv$ | $\dashv$ | $\dashv$ |          |           | +      | +            | 1      |             | 146        | $\vdash \vdash$     | $\dashv$ | $\dashv$ |                |           |   | $\dashv$        | $\dashv$        | $\dashv$  |
| <u> </u>    | 47                  | <del> </del>                                     | -  | <u> </u>     | $\vdash$        | Н               |          | $\vdash$   | $\vdash$   |           |          |  | 98            | $\vdash$        | $\dashv$ | $\dashv$ | $\dashv$ | -        | +         | +      | +            | -      |             | 147        | $\vdash \downarrow$ |          |          | $\dashv$       | $\dashv$  |   | $\dashv$        | $\dashv$        | $\dashv$  |
|             | 48                  | $\vdash$   | $\vdash$   |              | H               | Н               | <u> </u> |  | $\vdash$   |           |          |  | 99            | $\vdash \vdash$ | ∤-       |          | -        | -        | +         | +      | <del> </del> | -      |             | 148        | $\vdash \vdash$     | $\dashv$ | 4        | <del></del> -} | $\dashv$  |   | $\dashv$        |                 |           |
|             | <del>49</del><br>50 | ⊢  |  | -            | $\vdash \vdash$ |                 | <u> </u> | $\vdash$   | $\vdash$   |           |          |  | 100           |                 |          |          | -+       |          | +         |        | +            | -      |             | 149<br>150 | $\vdash \vdash$     | $\dashv$ | _        |                |           |   | $\dashv$        | $\dashv$        | $\dashv$  |
|             |                     | L  |  | L            |                 | ـــا            |          |  | ш  |           |          |  | 100           | لسا             |          | 1        |          |          |           |        | <u>!</u>     | J[     |             | 100        |                     |          |          |                |           |   | L               | _1              |           |